ABSTRACT OF THE DISCLOSURE

A data processing system nested interrupt controller 24 responsive to priority

5   level values 28, 30 associated with respective interrupt handling programs to control the execution of those interrupt handling programs. The priority level values have a first portion 28 which controls whether or not a pending interrupt handling program will pre-empt an already active interrupt handling program and a second portion 30 which controls which of a plurality of pending interrupt handling programs will be

10   executed next when they share the same value for the first portion of their priority level value.

[Figure 2]